

Background: Pain assessment and management in people living with dementia (PLWD) is challenging due to their compromised ability to reliably self-report, especially in advanced stages of dementia. Literature data on how pharmacists compare to different health professionals in regards to identification and management of pain in this population group is limited.

Purpose: Identify differences and areas of consideration for different health professionals, with focus on pharmacists, during identification and management of pain in PLWD.

Methods: We conducted semi-structured interviews with physicians, pharmacists, nurses and physiotherapists which in their daily practice engage with management of PLWD. These health professionals practiced in hospital, family medicine centers and pharmacies in various locations around Kosovo. Various literature data reporting challenges of pain management in PLWD was used to construct the interview guide which contained a number of open and closed ended questions focused around care of people living with dementia and management of their pain. Before finalizing the interview guide, it was first piloted with target health professionals to ensure content and face validity. We transcribed data collected verbatim and then thematically analyzed it using a grounded theory approach. Interviewing of health professionals was conducted until thematic saturation was achieved.

Findings: A total of 25 health professionals of which 11 physicians of different specialties, 5 pharmacists, 5 nurses and 4 physiotherapists. There were 7 main themes that emerged from semi-structured interviews. These themes were related to a) challenges to pain identification, b) concern about the presence of pain in PLWD, d) family member engagement e) use of analgesics and psychotropic medications f) lack of using pain assessment instruments, g) training needs of health professionals and h) collaboration between health professionals. Specific differences in how health professionals engage during management of pain in PLWD were also identified. Most health professionals did not use a specific observational pain assessment instrument to identify pain and reported that their use would facilitate this. Pharmacists reported a low level of direct engagement with the management of PLWD and this was mainly based on interaction with family members and indirectly through medical summaries provided by physicians.

Conclusions: Unlike physicians, nurses and physiotherapists, pharmacists were not directly involved in identification and management of pain in PLWD. Considering the increasing prevalence of dementia, this is an area that pharmacists need to further explore in order to consolidate their role during provision of pharmaceutical care for PLWD.

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Non-Biological Medication Burden in IBD Patients - Insights at the Onset of Adalimumab Therapy

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Background: Inflammatory bowel disease (IBD) often requires biologic therapy, with adalimumab (ADA) being an effective option for moderate to severe cases. Despite advancements, gender-specific differences in IBD management persist, influencing pharmacotherapy and patient care. Understanding medication burden at ADA initiation among patients based on clinical remission status is essential.

Purpose: This study aimed to evaluate the use of non-biological GI medications in IBD patients at ADA initiation, focusing on gender differences, clinical remission status, and diagnosis-specific patterns to support personalised treatment strategies.

Method/Study Design: A retrospective study was conducted on IBD patients receiving ADA. Data were analysed using SPSS Statistics (v28). Descriptive data were compared using Chi-Square and Mann-Whitney U tests to identify significant gender, clinical remission, and diagnosis-related differences in non-biological medication use and dosage. The number of non-biological GI medications and daily doses per patient were recorded.

Findings: The study included 83 IBD patients (mean age 37.98, SD 11.68), predominantly with Crohn's disease (89.6%), with 55.2% being female. The mean total number of non-biological GI medications was 1.99 (SD 1.45; range 0–6), with an average daily dose of 3.48 (SD 2.97; range 0–12.75). Males had a significantly higher number of daily doses compared to females ($p = 0.012$), while the total number of non-biological GI medications was higher in males but not significantly different between genders. No significant differences were noted between Crohn's disease and ulcerative colitis patients regarding daily doses ($p = 0.288$) or total medications ($p = 0.059$). Commonly prescribed non-biological GI drugs included azathioprine (44.8%), prednisone (29.2%), pantoprazole (27.1%), methotrexate (26%), metronidazole (18.8%), mesalazine tablets (14.6%), and probiotics (12.5%). Patients in clinical remission at ADA initiation had fewer daily doses and total non-biological GI medications than those not in remission ($p = 0.008$ and $p = 0.009$). Patients with perianal disease had a higher number of GI non-biological drugs ($p = 0.006$), while no significant difference was seen in patients with extraintestinal manifestations ($p = 0.403$).

Conclusion: This study highlights significant gender differences in the daily dose burden of non-biological GI medications among IBD patients treated with ADA, with males showing a higher burden. This may reflect more severe complications in males needing intensive treatment. Patients in clinical remission had fewer daily doses and total GI medications. The link between increased medication use and perianal disease underscores treatment complexity. Future research should explore these disparities and guide personalised treatment strategies.

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Engaging patients with self-reported adherence questionnaire in community pharmacy –Comparison of a pro-active position versus usual practice in Slovakia and Austria

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Background: The 15-STARs is a short, self-report questionnaire that assesses determinants of current medication non-adherence behaviors from 3 categories (practical difficulties, reasons and missed doses). It has been validated and translated in several languages including Slovak and German. It has not yet been used in practice. Especially, it is still unclear how patients and pharmacists can fully benefit from it.

Purpose: To investigate how pharmacists interact with patients to get a successful completion of the 15-STARs questionnaire in community pharmacy.

Methods: This is an exploratory study. We recruited 100 patients with cardiovascular diagnoses and polypharmacy in 1 pharmacy in Bratislava, Slovakia, and 6 pharmacies in Vienna, Austria (50 per country) between January and June 2024. Patients agreed to complete the 15-STARs as part of the encounter. The Slovak pharmacist adopted a pro-active position that consisted in encouraging patients to "tell the truth without fear", emphasizing that there is no right or wrong answer. At least one crossed item indicating adherence difficulty qualified for non-adherence. Percentages were calculated.

Findings: Non-adherence was more often mentioned by Slovak patients compared to Austrian (76% vs 66%) with less Slovak patients claiming perfect adherence by skipping the entire block of six reasons items (54% vs 64%). When discussing the results with the pro-active Slovak pharmacist, patients reflected on their behaviors and most of them adapted their answers. Especially, many patients believed that forgetting their medicine once or twice a week (item 13), particularly during weekends, was not an issue.

Conclusion: The 15-STARs is easily accepted by patients. Indicating adherence may be due to social desirability and misconception of the patient's own behavior. A pro-active way of discussing the answers with patients enables to

unveil concrete adherence difficulties, especially the underlying reasons.

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Process evaluation of a pharmacist-led intervention aimed at the deprescribing of cardiovascular and antidiabetic medication in a cluster-randomized controlled trial

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Background: Deprescribing inappropriate cardiovascular and diabetes medication has shown to be feasible and safe. Healthcare providers (HCPs) often experience the deprescribing of this medication as a challenge and therefore it is still not widely implemented. In the LeMON trial we assessed in a cluster-randomized trial involving 20 community pharmacists whether a training focused on conducting deprescribing-oriented clinical medication reviews (CMRs) decreased the number inappropriate cardiovascular and diabetes medication.

Purpose: The aim of this study was to gain insight into the implementation and normalisation of deprescribing of antihypertensives and oral antidiabetics within the context of a CMR.

Method: A mixed method process evaluation involving the intervention group pharmacists. They were provided a two hour digital training how to deprescribe the medication involved. Patient experiences and satisfaction were assessed using the Patient Reported Experience Measure (PREM) and Treatment Satisfaction Questionnaire for Medication (TSQM). Semi-structured interviews were conducted with the intervention pharmacists. Interview questions were based on the constructs of the Extended Normalization Process Theory (eNPT).

Findings: Overall PREM and TSQM scores were high for both control (n=26) and intervention (n=36) patients. The PREM statement ‘I trust the pharmacist’ was scored as (strongly) agreed by 77.8% and 96.2% (p=0.037) of control and intervention patients. The PREM statement ‘What I would like to change in my medication’ was scored as (very) important by 46.2% and 30.6% (p=0.029) of control and intervention patients. The TSQM question ‘How satisfied or dissatisfied are you with how often you have to use or take the medication?’ was scored as (very or extremely) satisfied by 71.3% and 86.1% (p=0.022) of the control and intervention patients. Pharmacist interviews showed that they had experienced a shared commitment with GPs towards deprescribing. Some had found it difficult to recommend deprescribing in the absence of side effects or when a medical specialist is involved in the treatment of the patient. They would recommend the training to other pharmacists, and were positive on performing more deprescribing-focused CMRs. This, however, would require more CMR time and reimbursement.

Conclusion: A deprescribing-focused CMR increases trust in pharmacists. Deprescribing can be performed within the current CMR framework. The results highlight the importance of HCP collaboration in deprescribing cardiovascular and diabetes medication and the need for sufficient resources to support this CMR process.

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Benefits of Integrating Virtual Patients in Pharmaceutical Care Education to Enhance Self-Medication Consultation Skills

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Background: The development of highly qualified healthcare specialists who can deal with the professional challenges in real practice requires pharmacy students to receive robust theoretical and practical training. Virtual patients are being implemented in pharmacy education across various countries in order to learn different techniques to improve communication skills, identify drug-related problems, assess the pharmacist's role in the self-medication process or assess students' knowledge acquisition.

Purpose: The objective of the study was to assess the benefits of integrating virtual patients in pharmacy education, particularly their impact on pharmacy students' knowledge and skills in self-medication counselling.

Material and Methods: A systematic review was conducted using PubMed, Scopus and Web of Science databases. The search strategy included the following keywords: (“self-medication” OR “self-care”) AND (“virtual patient” OR “digital patient”) AND (“pharmacy students”) AND (pharmaceutical care education). Topics related to the integration of virtual patients in the education of pharmacy students and the impact on self-medication counselling skills were evaluated. The inclusion criteria were full-text, peer-reviewed research articles, written in English. No publication date limits were set.

Findings: A total of 290 articles were identified through electronic databases and 11 met the inclusion criteria. Eight studies were conducted in the USA followed by three in Portugal and one each in Iran and the United Arab Emirates. Most studies employed a pre-post-study design. Key outcomes covered in analyzed articles included improvements in knowledge score, communication, and consultation skills, along with positive perceptions like increased student satisfaction and confidence levels.

Conclusion: Using virtual patients in pharmacy education positively impacts students by enhancing their theoretical knowledge as well as their practical communication and decision-making skills. The ability to provide feedback on students' performance after solving specific case scenarios using virtual patients is important for reinforcing their learning and professional development.

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Therapy-related Determinants influencing Medication Non-Adherence: A Systematic Review

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Background: Medication non-adherence remains a critical challenge in healthcare, significantly impacting treatment outcomes and increasing healthcare costs. According to the World Health Organization (WHO), the factors contributing to non-adherence are categorized into five dimensions: socio-economic factors, healthcare system-related issues, condition-specific factors, patient-related barriers and therapy-related factors. Despite the recognized importance of therapy-related factors—such as regimen complexity, side effects, and treatment duration—research focusing specifically on this dimension is scarce.

Purpose: This systematic review seeks to compile and analyse the latest evidence on the determinants of medication non-adherence, with a particular focus on factors related to the therapy itself.

Method: A systematic review is being conducted in accordance with the PRISMA guidelines. A comprehensive search has been performed across the PubMed, EMBASE, Web of Science, and PsycINFO databases using a predefined search strategy. Only studies published in English with full-text availability are included. Records have been screened by reading titles and abstracts and full-text articles are currently being reviewed. Articles are being selected based on predefined inclusion and exclusion criteria, and their methodological quality will be